

Appl. No.: 10/815,328
Amdt. dated 05/02/2006
Reply to Office action of February 3, 2006

Amendments to the Claims:

1-14 (Cancelled)

15. (New) A method of draining a fiber pulp suspension in a converging dewatering space defined between a first wire and a second wire each traveling from a pulp feed end toward a discharge end of the dewatering space, the dewatering space being configured such that water and a powdery substance are removed from the fiber pulp suspension through the first and second wires conveying the fiber pulp suspension along the dewatering space, the first and second wires having first and second pressure pulse elements, respectively, disposed adjacent thereto opposite the corresponding wire from the dewatering space, said method comprising:

generating a positive pressure pulse directed toward the dewatering space with a positive pressure pulse portion of one of the first and second pressure pulse elements; and
generating a negative pressure pulse in coincidence with the positive pressure pulse along the dewatering space, the negative pressure pulse being directed away from the dewatering space and being generated with a negative pressure pulse portion of the other of the first and second pressure pulse elements, such that the negative pressure pulse constructively interferes with and amplifies the positive pressure pulse through the dewatering space.

16. (New) A method according to Claim 15 wherein generating a positive pressure pulse and generating a negative pressure pulse further comprise generating a positive pressure pulse in coincidence with a negative pressure pulse along the dewatering space within a close-sided dewatering chamber.

17. (New) A method according to Claim 15 wherein generating a positive pressure pulse further comprises generating a positive pressure pulse with a positive pressure pulse portion of one of the first and second pressure pulse elements, the one of the first and second pressure pulse elements comprising at least one of a drainage foil, a rotating roll, and a non-rotating roll.

Appl. No.: 10/815,328
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18. (New) A method according to Claim 15 wherein generating a negative pressure pulse further comprises generating a negative pressure pulse with a negative pressure pulse portion of the other of the first and second pressure pulse elements, the other of the first and second pressure pulse elements comprising at least one of a drainage foil, a rotating roll, and a non-rotating roll.

19. (New) An apparatus for draining a fiber pulp suspension in a converging dewatering space configured such that water and a powdery substance are removed from the fiber pulp suspension through the first and second wires conveying the fiber pulp suspension along the dewatering space, said apparatus comprising:

- a first wire and a second wire cooperating to define a converging dewatering space therebetween, the first and second wires each traveling from a pulp feed end toward a discharge end of the dewatering space; and
- a first pressure pulse element and a second pressure pulse element disposed adjacent to the first and second wires, respectively, opposite the corresponding wire from the dewatering space, a positive pressure pulse portion of one of the first and second pressure pulse elements being configured to generate a positive pressure pulse directed toward the dewatering space, and a negative pressure pulse portion of the other of the first and second pressure pulse elements being configured to generate a negative pressure pulse in coincidence with the positive pressure pulse along the dewatering space, the negative pressure pulse being directed away from the dewatering space, such that the negative pressure pulse constructively interferes with and amplifies the positive pressure pulse through the dewatering space.

20. (New) An apparatus according to Claim 19 further comprising a close-sided dewatering chamber configured to house the dewatering space defined by the first and second wires.

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21. (New) An apparatus according to Claim 19 wherein the one of the first and second pressure pulse elements comprises at least one of a drainage foil, a rotating roll, and a non-rotating roll.

22. (New) An apparatus according to Claim 19 wherein the other of the first and second pressure pulse elements comprises at least one of a drainage foil, a rotating roll, and a non-rotating roll.